

## ABSTRACT OF THE INVENTION

[0091] The present invention provides a method for computing traffic between a pair of Points of Presence in an IP network by summing link utilization values measured for each link connecting a pair of Points of Presence and dividing the sum by the number of link utilization values included in the sum. The resulting average link utilization is the average link utilization of any link in the aggregate and may be multiplied by the number of active links connecting a pair of Points of Presence to reflect the total amount of traffic between the two Points of Presence. Future link utilization may be forecast by modeling the observed traffic between a pair of Points of Presence using wavelet multiresolution analysis to create an approximation curve that captures the long-term trend of link utilization and at least one detail curve that captures the short term deviation of link utilization around the long-term trend. A time series model of the approximation curve may then be constructed and used for forecasting. In a similar fashion, deviation of link utilization may be forecast.